VOLUME 83, ISSUE 1, FEBRUARY 2005

Review Articles

Structural and functional aspects of the Ly49 natural killer cell receptors
N Dimasi and R Biassoni 1

Immune dysregulation and self-reactivity in schizophrenia: Do some cases of schizophrenia have an autoimmune basis?
AL Jones, BJ Mowry, MP Pender and JM Greer 9

Research Articles

IFN-γ and TNF-α are involved in urushiol-induced contact hypersensitivity in mice
T Wakabayashi, D-L Hu, Y-I Tagawa, K Sekikawa, Y Iwakura, K Hanada and A Nakane 18

RGDS peptide inhibits activation of lymphocytes and adhesion of activated lymphocytes to human umbilical vein endothelial cells *in vitro*
U Pozzetto, MS Aguzzi, N Maggiano, E Scala, A Capelli, M Castagneto, MC Capogrossi, F Citterio, F Serino and A Facchiano 25

SAP and SLAM expression in anti-CD3 activated lymphocytes correlates with cytotoxic activity
S Mehrle, S Frank, J Schmidt, IGH Schmidt-Wolf and A Märten 33

Secretory products from infective forms of *Nippostrongylus brasiliensis* induce a rapid allergic airway inflammatory response
BJ Marsland, M Camberis and Graham Le Gros 40

Imatinib inhibits the functional capacity of cultured human monocytes
AL Dewar, KV Doherty, TP Hughes and AB Lyons 48

Vaccination of brushtail possums, *Trichosurus vulpecula*, with Bacille Calmette–Guerin induces T lymphocytes that reduce *Mycobacterium bovis* replication in alveolar macrophages via a contact-dependent/nitric oxide-independent mechanism
M Denis, DN Wedlock and BM Buddle 57

Herpesvirus saimiri immortalization of *Aotus* T lymphocytes specific for an immunogenically modified peptide of *Plasmodium falciparum* merozoite surface antigen 2
J-P Vernot, LA Perez-Quintero, AM Perdomo-Arciniegas, S Quijano and ME Patarroyo 67

Age-related changes in the development of experimental autoimmune encephalomyelitis
Y Ditamo, AL Degano, DR Maccio, MC Pistoresi-Palencia and GA Roth 75

Activation of dendritic cells by human papillomavirus-like particles through TLR4 and NF-κB-mediated signalling, moderated by TGF-β
M Yan, J Peng, IA Jabbar, X Liu, L Filgueira, IH Frazer and R Thomas 83

Brief Communication

IFN-γ overcomes low responsiveness of myeloid dendritic cells to CpG DNA
M Uchijima, T Nagata, T Aoshi and Y Koide 92

VOLUME 83, ISSUE 2, APRIL 2005

Review Articles

Lipid based particulate formulations for the delivery of antigen
MJ Copland, T Rades, NM Davies and MA Baird 97

Histidine-rich glycoprotein: A novel adaptor protein in plasma that modulates the immune, vascular and coagulation systems
AL Jones, MD Hulett and CR Parish 106

ISCOM™-based vaccines: The second decade
MT Sanders, LE Brown, G Deliyannis and MJ Pearse 119

Research Articles

Marked structural and functional heterogeneity in CXCR4: Separation of HIV-1 and SDF-1α responses
AJ Sloane, V Raso, DS Dimitrov, X Xiao, S Deo, N Muljadi, D Restuccia, S Turville, C Kearney, CC Broder, H Zoellner, AL Cunningham, L Bendall and GW Lynch 129

NK gene complex haplotype variability and host resistance alleles to murine cytomegalovirus in wild mouse populations
AA Scalzo, M Manzur, CA Forbes, MG Brown and GR Shellam 144

Protein kinase A affects *Galleria mellonella* (Insecta: Lepidoptera) larval haemocyte non-self responses
CL Brooks and GB Dunphy 150

Increased peripheral blood T-cell apoptosis and decreased Bcl-2 in chronic obstructive pulmonary disease
S Hodge, G Hodge, M Holmes and PN Reynolds 160

Fibronectin on activated T lymphocytes is bound to gangliosides and is present in detergent insoluble microdomains
S Blum, F Hug, GM Hänsch and C Wagner 167

Cooperation between CD4 T helper cells is required for the generation of alloantigen-specific, IFN-γ-producing human CD4 T cells
T Strutt and P Bretscher 175

Does memory improve with age? CD85j (ILT-2/LIR-1) expression on $CD8^+$ T cells correlates with 'memory inflation' in human cytomegalovirus infection
J Northfield, M Lucas, H Jones, NT Young and P Klenerman 182

Blockade of IFN-γ does not affect the arthritogenicity of T cells generated during the induction of adjuvant arthritis but exacerbates the polyarthritis produced by adoptive transfer of arthritogenic effector cells
M Brasted, LDJ Spargo, G Mayrhofer and LG Cleland 189

Brief Communication

Evidence of Toll-like receptor molecules on human platelets
F Cognasse, H Hamzeh, P Chavarin, S Acquart, C Genin and O Garraud 196

Book Review 199

Corrigendum 200

VOLUME 83, ISSUE 3, JUNE 2005

Special Feature: RNAi and Innate Immunity

Potential roles for short RNAs in lymphocytes
D Chowdhury and CD Novina 201

Immune responses to dsRNA: Implications for gene silencing technologies
AJ Karpala, TJ Doran and AGD Bean 211

Genome-wide screening for gene function using RNAi in mammalian cells
LM Cullen and GM Arndt 217

Detection of foreign RNA: Implications for RNAi
MJ de Veer, CA Sledz and BRG Williams 224

Special Feature: Plant Derived Vaccines

Transgenic plants for the production of veterinary vaccines
MJ Dus Santos and A Wigdorovitz 229

Is there a role for plant-made vaccines in the prevention of HIV/AIDS?
DE Webster, MC Thomas, R Pickering, A Whyte, IB Dry, PR Gorry and SL Wesselingh 239

The next 15 years: Taking plant-made vaccines beyond proof of concept
DD Kirk and SR Webb 248

Oral hepatitis B vaccine candidates produced and delivered in plant material
SJ Streatfield 257

Use of viral vectors for vaccine production in plants
MC Cañizares, L Nicholson and GP Lomonossoff 263

Expression systems and developments in plant-made vaccines
MM Rigano and AM Walmsley 271

Research Articles

Transfection of human monocyte-derived dendritic cells with CpG oligonucleotides
M Erhardt, M Gorschlüter, J Sager, C Ziske, J Strehl, MV Lilienfeld-Toal and IGH Schmidt-Wolf 278

Upregulation of LPS-induced chemokine KC expression by 15-deoxy–$\Delta^{12,14}$-prostaglandin J_2 in mouse peritoneal macrophages
HY Kim, HK Kim, JR Kim and HS Kim 286

A *Staphylococcus aureus* mouse keratitis topical infection model: Cytokine balance in different strains of mice
EBH Hume, N Cole, S Khan, LL Garthwaite, Y Aliwarga, TL Schubert and MDP Willcox 294

Contribution of the cornea to cytokine levels in the whole eye induced during the early phase of *Pseudomonas aeruginosa* challenge
N Cole, E Hume, S Khan, M Madigan, AJ Husband, L Garthwaite and M Willcox 301

Brief Communication

Direct processing and presentation of antigen from malaria sporozoites by professional antigen-presenting cells in the induction of $CD8^+$ T-cell responses
M Plebanski, CM Hannan, S Behboudi, KL Flanagan, V Apostolopoulos, RE Sinden and AVS Hill 307

Book Review 313

VOLUME 83, ISSUE 4, AUGUST 2005

Commentary

Blood brothers: Carbohydrates in xenotransplantation and cancer immunotherapy
PA Ramsland 315

Review Article

Genes, pathways and checkpoints in lymphocyte development and homeostasis
LA Miosge and CC Goodnow 318

Research Articles

Reactive oxygen species are essential mediators in antigen presentation by Kupffer cells
K Maemura, Q Zheng, T Wada, M Ozaki, S Takao, T Aikou, GB Bulkley, AS Klein and Z Sun 336

Immunity to melanoma mediated by 4-1BB is associated with enhanced activity of tumour-infiltrating lymphocytes
S-A Ju, S-C Lee, T-H Kwon, S-K Heo, S-M Park, H-N Paek, J-H Suh, HR Cho, B Kwon, BS Kwon and B-S Kim 344

Antibody blockade of Thy-1 (CD90) impairs mouse cytotoxic T lymphocyte induction by anti-CD3 monoclonal antibody
SMM Haeryfar, DM Conrad, BL Musgrave and DW Hoskin 352

Liver inflammation and cytokine production, but not acute phase protein synthesis, accompany the adult liver progenitor (oval) cell response to chronic liver injury
B Knight, VB Matthews, B Akhurst, EJ Croager, E Klinken, LJ Abraham, JK Olynyk and G Yeoh 364

Expression of chemokines on the surface of different human endothelia
P Hillyer and D Male 375

Theoretical Article

Hypothesis: Biological role for J-C intronic matrix attachment regions in the molecular mechanism of antigen-driven somatic hypermutation
A Franklin and RV Blanden 383

Brief Communication

Human antibodies to the polymorphic block 2 domain of the *Plasmodium falciparum* merozoite surface protein 1 (MSP-1) exhibit a highly skewed, peptide-specific light chain distribution
H Jouin, O Garraud, S Longacre, F Baleux, O Mercereau-Puijalon and G Milon 392

Special Feature: Glycobiology of Xenotransplantation and Cancer Part I

Carbohydrates in xenotransplantation
M Ezzelarab, D Ayares and DKC Cooper 396

Immune response to Thomsen–Friedenreich disaccharide and glycan engineering
FJ Irazoqui, VG Sendra, RD Lardone and GA Nores 405

In pursuit of xenoreactive antibodies: Where has it gotten us?
W Parker and AP Lesher 413

Carbohydrate vaccines as immunotherapy for cancer
SF Slovin, SJ Keding and G Ragupathi 418

Altered glycosylation of proteins produced by malignant cells, and application for the diagnosis and immunotherapy of tumours
A Kobata and J Amano 429

Tumor-associated carbohydrate antigens: A possible avenue for cancer prevention
Y Xu, A Sette, J Sidney, SJ Gendler and A Franco 440

Book Reviews 449

Abstracts from the 23rd Annual Scientific Meeting of the Transplantation Society of Australia and New Zealand A1

VOLUME 83, ISSUE 5, OCTOBER 2005

Review Articles

Dendritic cell dysfunction in cancer: A mechanism for immunosuppression
A Pinzon-Charry, T Maxwell and JA López 451

Time to abandon dogma: CD14 is expressed by non-myeloid lineage cells
HPA Jersmann 462

Research Articles

Induction of Ym1/2 in mouse bone marrow-derived mast cells by IL-4 and identification of Ym1/2 in connective tissue type-like mast cells derived from bone marrow cells cultured with IL-4 and stem cell factor
E Lee, J Yook, K Haa and HW Chang 468

Identification of domain boundaries within the N-termini of TAP1 and TAP2 and their importance in tapasin binding and tapasin-mediated increase in peptide loading of MHC class I
E Procko, G Raghuraman, DC Wiley, M Raghavan and R Gaudet 475

Toxoplasma gondii regulates ICAM-1 mediated monocyte adhesion to trophoblasts
AW Pfaff, S Georges, A Abou-Bacar, V Letscher-Bru, J-P Klein, M Mousli and E Candolfi 483

Tissue localization and frequency of antigen-specific effector CD4$^+$ T cells determines the development of allergic airway inflammation
NL Harris, J Holloway, P Fitzharris, M McDonald, M Camberis, B Fazekas de St Groth, F Ronchese and G Le Gros 490

Polymorphisms of *CARD15/NOD2* and *CD14* genes in New Zealand Crohn's disease patients
E Leung, J Hong, AG Fraser, TR Merriman, P Vishnu, WGH Abbott and GW Krissansen 498

Multipotential acceptance of Peyer's patches in the intestine for both thymus-derived T cells and extrathymic T cells in mice
S Takahashi, T Kawamura, Y Kanda, T Taniguchi, T Nishizawa, T Iiai, K Hatakeyama and T Abo 504

TNF-related apoptosis-inducing ligand (TRAIL)/Apo2L suppresses experimental autoimmune encephalomyelitis in mice
E Cretney, JL McQualter, N Kayagaki, H Yagita, CCA Bernard, IS Grewal, A Ashkenazi and MJ Smyth 511

Cloning and expression of a 12 kDa serospecific epitope of *Wuchereria bancrofti*
P Dabir, S Dabir and MVR Reddy 520

Differential expression of inflammatory chemokines by Th1- and Th2-cell promoting dendritic cells: A role for different mature dendritic cell populations in attracting appropriate effector cells to peripheral sites of inflammation
MC Lebre, T Burwell, PL Vieira, J Lora, AJ Coyle, ML Kapsenberg, BE Clausen and EC de Jong 525

Correlation between mRNA expression of Th1/Th2 cytokines and their specific transcription factors in human helper T-cell clones
N Kitamura, O Kaminuma, A Mori, T Hashimoto, F Kitamura, M Miyagishi, K Taira and S Miyatake 536

Production and purification of human indoleamine 2,3-dioxygenase (HuIDO) protein in a baculovirus expression system and production and characterization of egg yolk antibody against the purified HuIDO
NL Webster, J Wee, SJ Uren, W Boyle and MS Sandrin 542

Brief Communication

Oral vaccination of mice with lipid-encapsulated *Mycobacterium bovis* BCG: Anatomical sites of bacterial replication and immune activity
FE Aldwell, MA Baird, CE Fitzpatrick, AD McLellan, ML Cross, MR Lambeth and GS Buchan 549

Special Feature: Plasmacytoid Dendritic Cells

Plasmacytoid dendritic cells and the regulation of immunoglobulin heavy chain class switching
A Cerutti, X Qiao and B He 554

Development of murine plasmacytoid dendritic cell subsets
SH Naik, LM Corcoran and L Wu 563

Activation of plasmacytoid dendritic cells
M Fuchsberger, H Hochrein and M O'Keeffe 571

Role for plasmacytoid dendritic cells in anti-HIV innate immunity
M Müller-Trutwin and A Hosmalin 578

Book Reviews 584

VOLUME 83, ISSUE 6, DECEMBER 2005

Research Articles

Restoration of hepatic mast cells and expression of a different mast cell protease phenotype in regenerating rat liver after 70%-hepatectomy
M Zweifel, K Breu, K Matozan, E Renner, M Welle, T Schaffner and P-A Clavien 587

Lymphocytes and MHC class II positive cells in the female rabbit reproductive tract before and after ovulation
W Gu, P Janssens, M Holland, R Seamark and P Kerr 596

Role of oxidative stress in ERK and p38 MAPK activation induced by the chemical sensitizer DNFB in a fetal skin dendritic cell line
TJ Matos, CB Duarte, M Gonçalo and MC Lopes 607

Recombinant fowlpox virus for *in vitro* gene delivery to pancreatic islet tissue
MF Solomon, IA Ramshaw and CJ Simeonovic 615

Macrophage inflammatory protein-1α expression plasmid enhances DNA vaccine-induced immune responses against HSV-2
W Shao, X Li, M Li, L Shi, Y Qin and K Li 626

Detection of prion epitopes on PrP^{c} and PrP^{sc} of transmissible spongiform encephalopathies using specific monoclonal antibodies to PrP
FF Yuan, S Biffin, MW Brazier, M Suarez, R Cappai, AF Hill, SJ Collins, JS Sullivan, D Middleton, G Multhaup, AF Geczy and CL Masters 632

Protection against malaria by anti-erythropoietin antibody due to suppression of erythropoiesis in the liver and at other sites
S Tsubata, K Ebe, T Kawamura, Y Ishimoto, C Tomiyama-Miyaji, H Watanabe, H Sekikawa, Y Aoyagi and T Abo 638

IFN-γ enhances bovine macrophage responsiveness to *Mycobacterium bovis*: Impact on bacterial replication, cytokine release and macrophage apoptosis
M Denis, DN Wedlock and BM Buddle 643

Evidence that insulin-like growth factor-1 requires protein kinase C-ε, PI3-kinase and mitogen-activated protein kinase pathways to protect human vascular smooth muscle cells from apoptosis
TR Allen, KD Krueger, WJ Hunter III and DK Agrawal 651

Brief Communication

Hypoxia inhibits the migratory capacity of human monocyte-derived dendritic cells
X Qu, M-X Yang, B-H Kong, L Qi, QLK Lam, S Yan, P Li, M Zhang and L Lu 668

Special Feature: Glycobiology of Xenotransplantation and Cancer Part II

The α-gal epitope and the anti-Gal antibody in xenotransplantation and in cancer immunotherapy
U Galili 674

α1,3-Galactosyltransferase knockout pigs are available for xenotransplantation: Are glycosyltransferases still relevant?
J Milland, D Christiansen and MS Sandrin 687

Characteristics of protein–carbohydrate interactions as a basis for developing novel carbohydrate-based antirejection therapies
J Holgersson, A Gustafsson and ME Breimer 694

Three-dimensional structures of carbohydrate determinants of Lewis system antigens: Implications for effective antibody targeting of cancer
E Yuriev, W Farrugia, AM Scott and PA Ramsland 709

Book Review 718